

Brain Compatible Strategies

Pam Schiller, Ph.D.

Ram Sam Sam

Ram sam sam

Ram sam sam

Goolie, goolie, goolie, goolie,

Ram sam sam

A-raffey! A-raffey!

Goolie, goolie, goolie, goolie,

Ram sam sam.

Research to Practice: Intentionality

■ Research Finding:

- Intentional focus optimizes learning.

■ Practices:

- Act with purpose (specific outcome in mind).
- Balance child-directed and adult directed activities.
- Balance academic focus with domains
 - Academic (literacy, mathematics, science)
 - Domains (cognitive, social-emotional, motor...)
- Use developmental continuums.
- Be knowledgeable.

Research to Practice: The Environment

■ Research Findings:

- Safety and well-being must be assured in order for learning to take place.
- Threats and emotions inhibit cognitive processing. Strong emotions (negative or positive) can shut down cognitive processing.

■ Practices:

- Use safety rituals as appropriate.
- Eliminate threats.
- Keep space cozy and use child size materials.
- Make an effort to “not overprotect.”

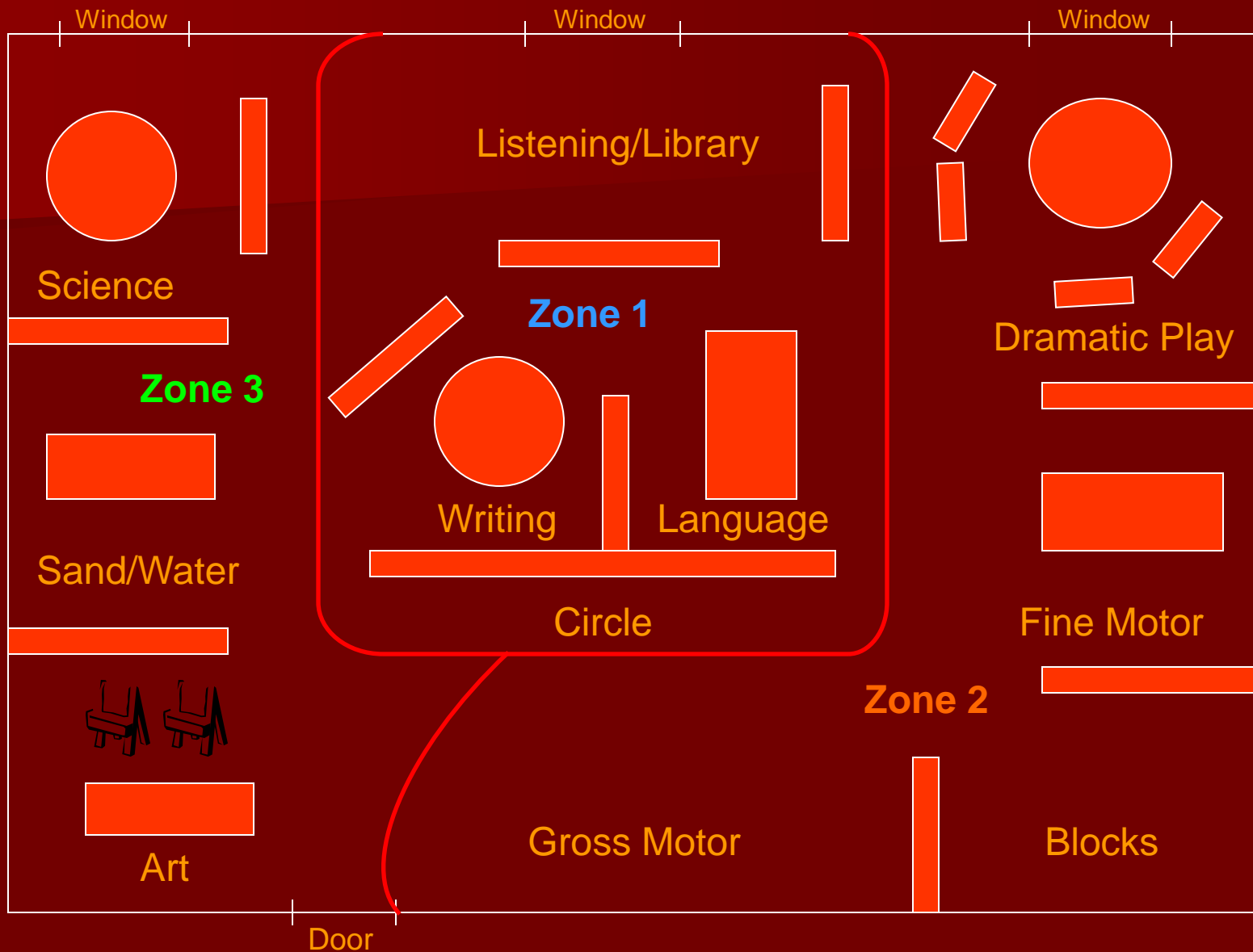
Research to Practice: The Environment

■ Research Findings:

- Over-stimulating environments inhibit cognitive functioning.
- Children do not make thoughtful choices when given more than three options.

■ Practices:

- Reduce wall décor. Make sure the eye has a place to rest.
- Rotate toys and games.
- Limit choices.
- Practice stress reduction strategies.



More Environmental Findings

- Aromas
- Colors
- Senses
- Nutrition and Hydration
- Rest
- Novelty
- Transitions
- Exercise

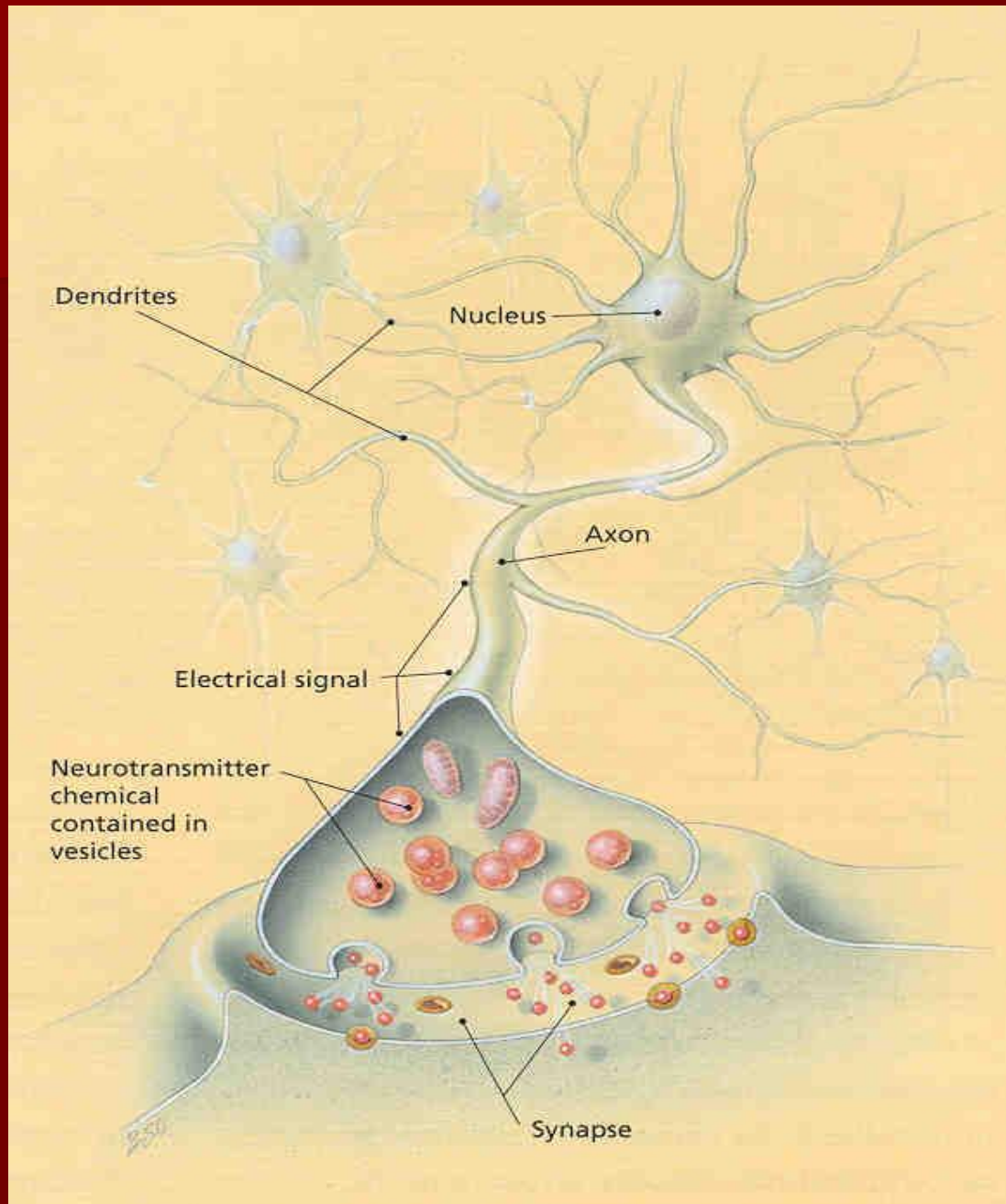
Research to Practice: Wiring

■ Research Findings:

- Brain structure and capacity are the result of a complex interplay between genes and the environment.
 - Experience wires the brain.
 - Repetition strengthens the wiring.

■ Practices:

- Instruction is intentional and purposeful based on the “Windows of Opportunity” for wiring.
 - Offer positive experiences at fertile times.
 - Provide repetition within two days of the initial instruction.
 - Repeat experiences six times within 30 days.



Roadmap to Individual Differences

| Characteristic | Genetic | Environmentally Influenced | Emergence |
|----------------|---------|----------------------------|-----------|
| Learning Style | | ✓ | 20 months |
| MI Profile | ✓ | ✓ | 30 months |
| Personality | ✓ | ✓ | 11 months |
| Temperament | ✓ | ✓ | 15 months |

Learning Styles

- Auditory
- Visual
- Kinesthetic

Personality Style

Analytic

Driver

Amiable

Expressive

Multiple Intelligence Profile

- Linguistic
- Logical-mathematical
- Spatial
- Musical
- Bodily-kinesthetic
- Interpersonal
- Intrapersonal
- Naturalist

Temperaments

| Temperaments | High Level | Low Level |
|-------------------|--|---|
| Novelty Seeking | Thrill seeking, intuitive, adventurous, fickle, disorderly, impulsive | Orderly and organized, self-controlled, loyal, analytical, direct, stoic |
| Harm Avoidance | Anxious, pessimistic, inhibited, easily fatigued, given to depression | Confident, optimistic, highly energetic, carefree even in the face of danger, uninhibited |
| Reward Dependence | Dependent on emotional support and feedback of others, sentimental, sensitive to social cues | Socially detached, loner, non-conformist, cynical, insensitive to social cues |
| Persistence | Eager, ambitious, determined | Uninterested in achievement, uninhibited |

Research to Practice: Learning

■ Research Finding:

- Learning engages the entire person (cognitive, affective, and psychomotor domains).

■ Practices:

- Experiences support fertile wiring opportunities.
- Individual learning style, personality, MI profile, temperament and past experiences are taken into consideration.

Windows of Opportunity

| Window | Wiring Opportunity | Greatest Enhancement |
|--|---|--|
| Emotional Intelligence Trust Impulse Control | 0 - 48 months 0 –14 months 16 –48 months | 4 years to puberty |
| Social Development Attachment Independence Cooperation | 0 -48 months 0-12 months 12-24 months 24-48 months | 4 years to puberty |
| Thinking Skills Cause and Effect Problem-Solving | 0 - 48 months 0 –16 months 16 - 48 months | 4 years to puberty |
| Motor Development | 0 - 24 months | 2 years to puberty |
| Vision | 0 –24 months | 2 years to puberty |
| Reading Foundation Skills Early Sounds Vocabulary | 0 - 24 months 4 - 8 months 0 - 24 months | 2 - 7 years 8 mos. –10 years 2-5 years |

Relationships play a major role in the wiring of social-emotional intelligence.

“Caregivers, parents and teachers, hold in their hands the chance to shape a child’s entire future. High on the list of priorities are the social interactions and emotional exchanges between caregiver and child.”

Bruce Perry, MD.
Texas Medical Center

Research to Practice: The Adult

■ Research Findings:

- Early interactions affect brain structure and capacity.
- External reward inhibits internal motivation.
- Social and emotional intelligence wires from birth.

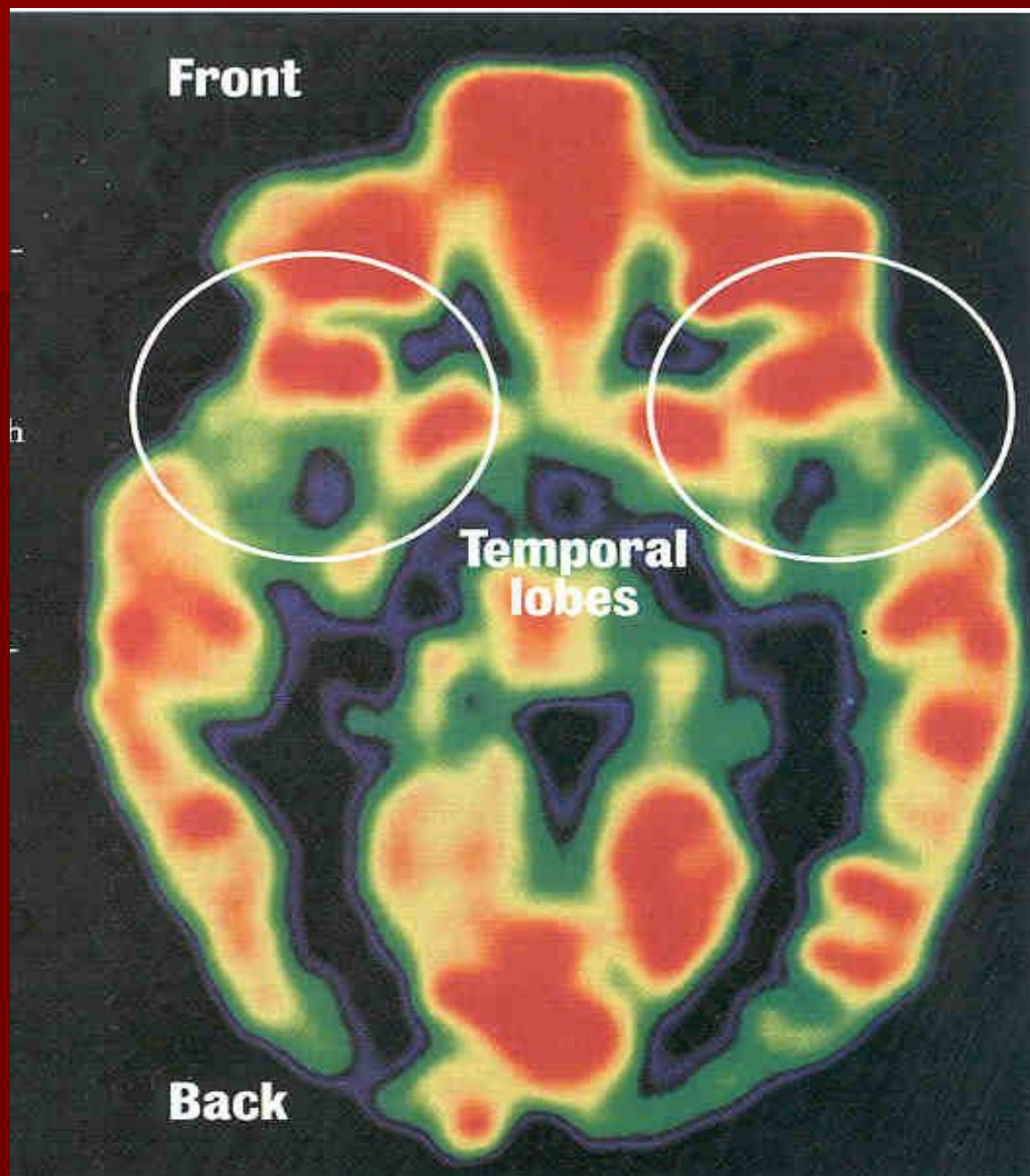
■ Classroom Practices:

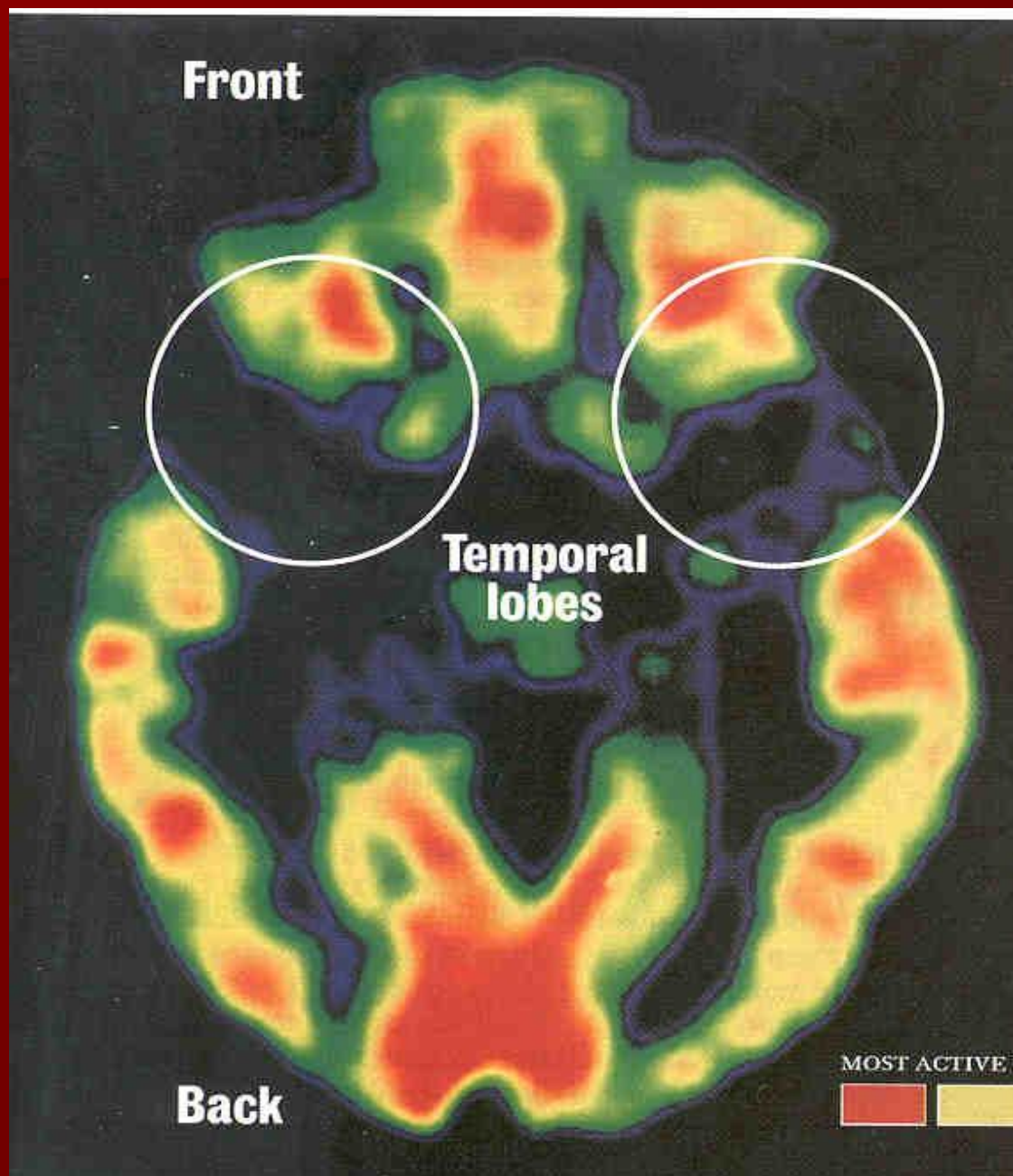
- Adults are nurturing permanent, and knowledgeable.
- Adults are models of appropriate behaviors.

“Children have more need of models than critics”

Carolyn Coates

- Adults use encouragement as opposed to praise or tangible rewards.





Encouragement Instead of Praise

■ Findings:

Extrinsic reward inhibits intrinsic motivation.

The brain functions optimally when stress is low and safe challenges are high.

- Eliminate the use of stickers and privilege rewards.
- Be honest and sincere with compliments.
- Encourage children to critique themselves.
- Avoid comparisons.
- Focus on process instead of product.

Negative Impacts of Praise

- Too much praise burdens—it pressures children to live up to your expectations.
- Value driven praise result in children equating good with pleasing others and bad with displeasing others. We raise people-pleasers instead of thinkers.
- If you praise for only completed tasks you send a message that effort doesn't matter.
- Bottom line: You can't build confidence from the outside.

Encouragement Strategies

Notice, Acknowledge and Appreciate

- Notice and describe behavior

“Look at you. You finished the puzzle. That took determination.”

“You did it. You came down the slide feet first and landed right in my arms.”
- Link actions to enjoyment and satisfaction instead of a tangible reward.
- Use encouragement especially when children make a poor choice.

“I feel confident that you will find a better way.”

“Children need love especially when they don’t deserve it.”

Harold Hulbert

Summarizing the Human Experience

- Children need:
 - A calm, quiet initial experience in their new environment
 - One significant person with whom they can bond
 - Fully present attention from caregivers
 - Encouragement balanced with celebration of accomplishments.
 - Someone to set and hold boundaries
 - Opportunities to work and play with peers
 - Adequate experiences with language

Reflecting

- Learning engages the whole person.
- Over stimulation impedes learning. Less is more (décor, information, materials, choices).
- Safety and a sense of well-being open the door for learning.
- All learners are learning best when learning is integrated, hands-on, meaningful, visual and verbal.
- Intelligence is the recognition of patterns.
- External rewards inhibit internal motivation.
- Oxygen, water and protein increase alertness.
- Prolonged stress damages brain structure.
- Television and computer games are detrimental to visual wiring, and can be a deterrent to social development and thinking skills.

References

- Goleman, Daniel (1995) *Emotional Intelligence*. Bantam, New York: 1995.
- Goleman, Daniel (2006) *Social Intelligence*. New York: Bantam.
- Healy, Jane (2004) *Your Child's Growing Mind*. New York: Broadway.
- Jensen, Eric (2005) *Teaching with the Brain in Mind*. Del Mar, CA. Turning Point Publishing.
- Schiller, P. (2010) Nov/Dec. Brain research: review and update. *Child Care Information Exchange*. Redmond, WA.
- Shore, R. 2003. *Rethinking the brain, revised edition*. Families and Work Institute; Washington, DC.
- Sousa, David (2006) *How the Brain Learns*. Reston, VA: National Association of Secondary School Principals.
- Sylwester, Robert (1995) *A Celebration of Neurons: An Educator's Guide to the Human Brain*. Alexandria, VA: Association of Supervision and Curriculum Development.